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REMARKS

Reconsideration of the present application is respectfully requested.

Objections to the Drawings

The Examiner has objected to the drawings under 37 CFR 1.83(a) as allegedly failing to show every feature of the invention specified in the claims. In particular, the Examiner asserts that the recited "shield substrate" and/or "shield frame" is not shown.

By this response, Applicants have amended the claims to replace the term "shield substrate" with "frame," and to eliminate the use of the term "shield frame." Applicants' FIGs. 1, 2, and 4 show a frame 20, so this element is clearly shown in the drawings.

Based on this amendment, Applicants submit that the drawings show every feature of the invention specified in the claims. Applicants therefore respectfully request that the Examiner withdraw the objection to the drawings under 37 CFR 1.83(a).

Objections to the Specification

The Examiner has objected to the disclosure because of a number of informalities. In particular, the Examiner asserts that the recited elements "shield substrate" and "shield frame" are not named in the specification to support such elements of the same language in the claims.

By this response, Applicants have amended the claims to replace the term "shield substrate" with "frame," and to eliminate the use of the term "shield frame." Applicants' specification discloses the use of the term "frame" in numerous places. (See, e.g., page 8, line 23, page 9, lines 4 and 10, and page 12, line 6 of the substitute specification.)

Based on this amendment, Applicants submit that the informalities identified by the Examiner have been corrected. Applicants therefore respectfully request that the Examiner withdraw the objection to the disclosure.

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Objections to the Claims

The Examiner has objected to claims 1, 7, 17, and 20, alleging that the use of the language "drive signal" instead of "driving force" or "electrostatic force" is objectionable.

By this response Applicants have amended claim 1 to recite "an input electrode disposed on said insulation film so as to face said movable portion through an open space, receiving a periodic signal from said circuit substrate, and causing said movable portion to vibrate in said first direction, a first stray capacitor of a first capacitance being induced in said insulating film between said input electrode and said conductive substrate." This clearly shows that the input electrode receives the periodic signal and causes the movable portion to vibrate. Thus, there is no recitation that the periodic signal is provided to the movable portion. Applicants have made a similar amendment to claim 7.

In addition, Applicants have amended claim 17 to recite "an input electrode for receiving a periodic signal from said external circuit, and for causing said movable portion to vibrate." This clearly shows that the input electrode receives the periodic signal and causes the movable portion to vibrate.

Claim 20 recites "capacitive driving means for driving said movable portion, said capacitive driving means including a drive electrode included in said fixed portion for receiving a drive signal from said external circuit to provide a drive force to said movable portion to vibrate said movable portion." This clearly shows that the fixed portion receives a drive signal and provides a drive force to the movable portion to vibrate said movable portion."

In each of these cases, the claim recites an element (e.g., an input electrode or a drive electrode) that receives a signal (e.g., a periodic signal or a drive signal) and causes a movable portion to vibrate. None of these claims imply that the received signal is sent to the movable element.

The Examiner has objected to claims 28, 30, and 31 saying that the term "including" should be used rather than "comprising," since the recited elements include more than just the listed element.

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Applicants traverse this objection since the term "comprising" is a transitional term that is inclusive or open-ended and does not exclude additional unrecited elements. In fact, MPEP 2111.03 specifically notes that the transitional term "comprising" is synonymous with "including." By extension, the term "comprises" should be synonymous with the term "includes," and both should be considered inclusive.

The Examiner has objected to claims 23, 32, 35, and 38, asserting that the term "on a plane" should read "in a plane." Applicants respectfully traverse this rejection since the terms "on a plane" and "in a plane" are functionally equivalent terms in geometry. However, in an effort to expedite prosecution, and in no way acquiescing to this objection, Applicants have amended claims 23, 32, 35, and 38, to change the term "on a plane" to read "in a plane."

Based on the above amendments and comments, Applicants respectfully request that the Examiner withdraw the objections to the claims.

Claim Rejections - 35 U.S.C. § 112, First Paragraph

The Examiner has rejected claims 1-40 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. In particular, the Examiner asserts that the specification does not mention a shield substrate or a shield frame element by name. Based on this the Examiner asserts that the specification does not teach one how to make or use the claimed invention. Applicants respectfully traverse this rejection.

Applicants' specification discloses the use of the term "frame" in numerous places. (See, e.g., page 8, line 23, page 9, lines 4 and 10, and page 12, line 6 of the substitute specification.) One skilled in the relevant art would understand that this frame could serve the function of a shield substrate or a shield frame.

However, in an effort to expedite prosecution, and in no way acquiescing to this rejection, Applicants have amended the claims to replace the term "shield substrate" with "frame," and to

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eliminate the use of the term "shield frame." As noted above, the specification clearly discloses a frame.

Based on the above comments and claim amendments, Applicants submit that claims 1-40 are definite. Applicants therefore respectfully request that the Examiner withdraw the rejection of claims 1-25 under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claims 1-40 under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-40, the Examiner asserts that it is unclear what the shield substrate and the shield frame are in all of the claims. Applicants respectfully traverse this rejection.

However, as noted above, in an effort to expedite prosecution, and in no way acquiescing to this rejection, Applicants have amended the claims to replace the term "shield substrate" with "frame," and to eliminate the use of the term "shield frame." Based on Applicants' specification and drawings, it should be perfectly clear what is meant by the "frame."

Furthermore, with respect to claim 7, Applicants have eliminated the recitation of a shield substrate and a pad. With respect to claims 1 and 17, Applicants have eliminated the terms "shield frame" and "shield substrate" With respect to claim 34, Applicants have amended the claim to recite that "said frame surrounds at least said output electrode and input electrode and is arranged at least between said detection electrode and said drive electrode." Each of these amendments addresses the Examiners particular concerns noted in paragraph 9 of the current Office Action.

The Examiner has asserted that in claim 23 the connecting means is connected to a shield substrate instead of the plate 90, as disclosed. However, neither claim 23 nor any other claim in this

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application recite "connecting means." Applicants are therefore uncertain of the Examiner's particular concern with respect to this claim.

The Examiner has also asserted that the language of the next to last clause in each of claims 1, 7, 13, 17, 20, 23, 32, and 35 is confusing so that it can't be interpreted. Applicants respectfully traverse this rejection.

With respect to claims 1 and 7, Applicants have deleted the next to last clause, thus rendering this rejection moot as it pertains to these claims.

With respect to claim 13, Applicants have amended the next to last clause to recite "a shield wire connected to said shield wire pad and connectable to a constant potential at said external circuit, wherein said shield wire provides capacitive shielding between said drive signal wire and said detection wire to shield said detection wire from said drive signal on said drive signal wire when said semiconductor device is electrically and mechanically connected to said external circuit, the shield wire pad being located between the detection electrode and the drive signal electrode, the shield wire operating to supply said constant potential to said frame to further shield said detection electrode and said detection wire from said drive signal on said drive signal wire when said semiconductor device is electrically and mechanically connected to said external circuit." This should provide the clarification the Examiner requested.

With respect to claim 17, Applicants have amended the next to last clause to recite "a pad connected to said shield wire on said fixed portion at a location between said input electrode and said output electrode to place said shield wire between said input wire and output wire, the pad having electrical insulation to shield said output wire from said periodic signal provided on said input wire when said semiconductor device is electrically and mechanically connected to said external circuit, the pad operating to supply said constant potential to said frame to shield said output electrode from said periodic signal provided on said input electrode when said semiconductor device is electrically and

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mechanically connected to said external circuit." This should provide the clarification the Examiner requested.

With respect to claim 20, Applicants have amended the next to last clause to recite "a shield wire connected to said shield wire pad and being connectable to a constant potential at said external circuit, wherein said shield wire provides capacitive shielding between said drive signal wire and said detection wire in order to shield said detection wire from said drive signal, which is provided on said drive signal wire when said semiconductor device is electrically and mechanically connected to said external circuit, the shield pad being located between the drive electrode and the detection electrode, and the shield wire operating to supply said constant potential to said frame in order to shield said detection electrode from said drive signal, which is provided on said drive signal electrode." This should provide the clarification the Examiner requested.

With respect to claim 23, Applicants have amended the next to last clause to recite "a shield wire connected to said shield wire pad and being connectable to a constant potential at said external circuit, wherein said shield wire provides capacitive shielding between said drive signal wire and said detection wire in order to shield said detection wire from said drive signal, which is provided on said drive signal wire when said semiconductor device is electrically and mechanically connected to said external circuit, the shield wire pad being located between the drive electrode and the detection electrode, and the shield wire operating to supply said constant potential to said frame to shield said detection electrode from said drive signal on said drive signal electrode." This should provide the clarification the Examiner requested.

With respect to claim 32, Applicants have amended the next to last clause to recite "a shield pad connected to said shield wire on said fixed portion at a location between said input electrode and said output electrode, the shield pad operating to place said shield wire between said input wire and output wire, the shield pad having electrical insulation to shield said output wire from said periodic

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signal, which is provided on said input wire, and the shield pad operating to supply said constant potential to said frame to shield said output electrode and said output wire from said periodic signal on said input electrode." This should provide the clarification the Examiner requested.

With respect to claim 35, Applicants have amended the next to last clause to recite "a shield pad connected to said shield wire on said fixed portion at a location between said input electrode and said output electrode, the shield pad operating to place said shield wire between said input wire and output wire to shield said output wire from said periodic signal on said input wire, the shield pad being located between said input wire and said monitor wire and having electrical insulation to shield said monitor wire from said periodic signal, which is provided on said input wire, and the shield pad operating to supply said constant potential to said frame to shield said monitor electrode and said output electrode from said periodic signal on said input electrode." This should provide the clarification the Examiner requested.

Based on the above comments and claim amendments, Applicants submit that claims 1-40 are definite. Applicants therefore respectfully request that the Examiner withdraw the rejection of claims 1-25 under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

New Claims

By this response, Applicants have added new claims 41-44. Applicants respectfully request that these new claims be entered and considered by the Examiner.

Claim Amendments

By this response Applicants have cancelled claims 5 and 12 without prejudice or disclaimer, have amended claims 3 and 4 to depend from new claim 41, have amended claims 9-11 to depend from new claim 42, and have amended claims 1, 6, 7, 8, 10, 11, 17, 32, 34, 35, 37, and 40 to better

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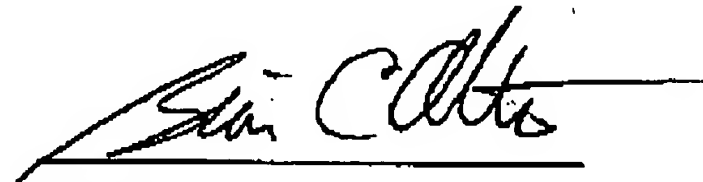
recited the claimed invention. For example, the term periodical has been changed to periodic where it appears.

Conclusion

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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